

REMARKS

Please reconsider the application in view of the following remarks. Applicant thanks the Examiner for carefully considering this application.

Disposition of Claims

Claims 1-4 are pending in this application. Claims 1 and 3 are independent. The remaining claims depend, directly or indirectly, from claims 1 and 3.

Claim Amendments

Claims 1 and 3 have been amended in this reply to clarify the present invention recited. Support for these amendments may be found in, for example, the original claims and the disclosure of the specification. Among other things, the amendment of “wherein the selected operation program configures a setting required for operation the application program” recited in claim 1 is supported by, for example, the paragraph of the specification associating with Fig. 5. No new matter has been added.

Rejection(s) under 35 U.S.C § 102

Claims 1-4 stand rejected under 35 U.S.C. § 102 (e) as anticipated by U.S. Patent 6,728,956 (“Ono”). For the reasons below, this rejection is respectfully traversed.

Independent claim 1, as amended, is directed to a mechanism of updating a program. Also, independent claim 3, as amended is directed to a method of updating an operation program. Specifically, claim 1, as amended, includes a limitation of “in the case when the first failure detecting means detects any failure in the activation of the selected operation program, the activating means selects another operation program to switch over from the

selected operation program, and in the case when the second failure detecting means detects any failure in the activation of the application program, the recovering application resets the setting configured by the selected operation program.” Claim 3, as amended, includes limitations of “in the case when a failure is detected in the activation of the second operation program, activating a first operation program to switch over from the second operation program; and “in the case when a failure is detected in the activation of the application program, activating a recovering application which resets a setting used for execution of the application program and resetting the second setting to the first setting.

More specifically, a program update apparatus of the present invention updates an operation program, on which an application program is executed so as to allow a system to accomplish a required function, such as data collecting or device controlling. Namely, as shown in, for example, Figs. 4-6, the program update apparatus receives and stores a latest version of an operation program, and tries to activate the latest operation program instead of operation of a previous version of an operation program. In the activation process, the program update apparatus checks whether any of a failure in activation of the latest operation program and a failure in activation of the application program occurs. If a failure in the activation of the latest operation program is detected, the program update apparatus gets back to the operation of the previous operation program. Further, if a failure in the activation of the application program is detected, a recovering application is activated and recovers the execution of the application program by resetting a setting that may be rewritten by the activation of the latest operation program. The setting is used for the execution of the application program and may depend upon a version of the operation program.

Ono, in stark contrast to the present invention, fails to show or suggest at least the above limitations as recited in claim 1 as amended. Ono simply discloses that when an activation of the operation program does not work, a restoration is achieved by replacement with a previous version of the program. Ono *never* detects a failure in an activation of an application program. In other words, Ono does not have a second failure detecting means as recited in claim 1. This is because Ono does not allow for a system being operated on a multi-program stack layer, which may be implemented by an operation program and an application program. In fact, Ono does not disclose both of an operating program and an application program executed on the operating program.

On the other hand, the program update apparatus of the present invention allows the execution of the application program to be recovered, by way of resetting the setting, even if the setting is rewritten by the latest version of the operation program. It is asserted that Ono discloses that a failure of a program in a flush memory A12 causes a jump instruction to be rewritten. However, the setting used for the execution of the application program as recited in claim 1 is completely different than the jump instruction disclosed in Ono. The jump instruction simply indicates which flush memory is selected next time and is rewritten only when confirming that the operation program is normally operated. See col. 6, lines 35-41 of Ono.


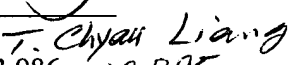
In view of above, Ono fails to show or suggest the present invention as recited in claim 1. As discussed above, claim 3 includes similar limitations to claim 1. Thus, claims 1 and 3 are patentable over Ono. Dependent claims are also allowable for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

Conclusion

Applicant believes this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 15115.020001).

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